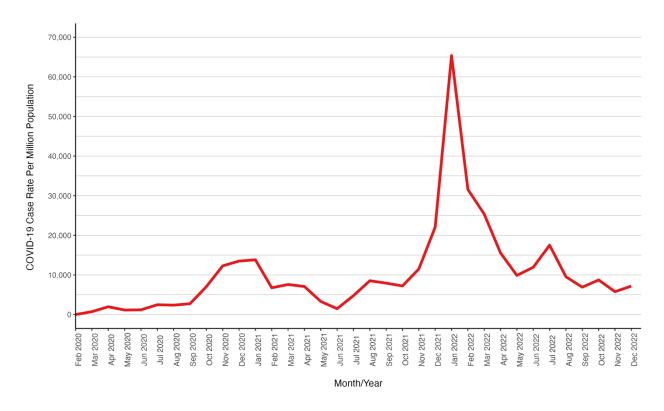
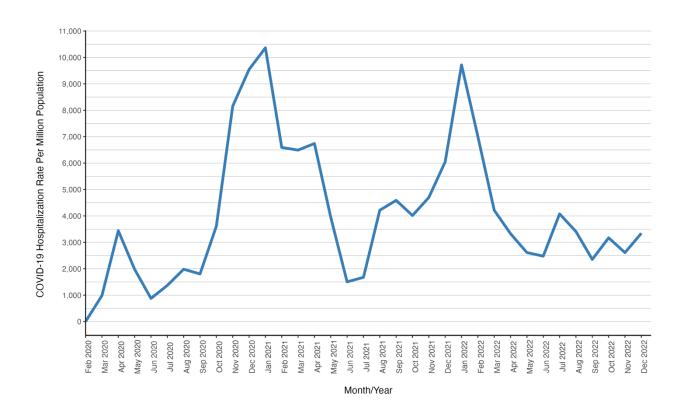
**Supplementary Appendix**: Seasonal trends in COVID-19 cases, hospitalizations, and deaths in the United States and Europe

Figure 4: Influenza percent positivity October 2009 - December 2021, European Union, United Kingdom, and United States	<b>Figure 1</b> : COVID-19 case rate per million population by month-year, February 2020 – December 2022, European Union, United Kingdom, and United States
December 2022, European Union, United Kingdom, and United States	
Kingdom, and United States	<b>Figure 3:</b> COVID-19 mortality rate per million population by month-year, February 2020 – December 2022, European Union, United Kingdom, and United States
Figure 6: Trend component for COVID-19 cases, March 2020 - December 2022	<b>Figure 4:</b> Influenza percent positivity October 2009 - December 2021, European Union, United Kingdom, and United States
Figure 7: Weekly seasonal component for COVID-19 cases, March 2020 - December 20229  Figure 8: Stringency Index component for COVID-19 cases, March 2020 - December 202210  Figure 9: Annual seasonal component for COVID-19 hospitalizations, March 2020 - December 2022	Figure 5: Annual seasonal component for COVID-19 cases, March 2020 - December 2022 7
Figure 8: Stringency Index component for COVID-19 cases, March 2020 - December 2022	Figure 6: Trend component for COVID-19 cases, March 2020 - December 2022
Figure 9: Annual seasonal component for COVID-19 hospitalizations, March 2020 - December 2022	Figure 7: Weekly seasonal component for COVID-19 cases, March 2020 - December 2022 9
Figure 10: Trend component for COVID-19 hospitalizations, March 2020 - December 202212  Figure 11: Weekly seasonal component for COVID-19 hospitalizations, March 2020 - December 2022	Figure 8: Stringency Index component for COVID-19 cases, March 2020 - December 2022 10
Figure 11: Weekly seasonal component for COVID-19 hospitalizations, March 2020 - December 2022	<b>Figure 9</b> : Annual seasonal component for COVID-19 hospitalizations, March 2020 - December 2022
Figure 12: Stringency Index component for COVID-19 hospitalizations, March 2020 - December 2022	Figure 10: Trend component for COVID-19 hospitalizations, March 2020 - December 202212
Figure 13: Annual seasonal component for COVID-19 mortality, March 2020 - December 2022  Figure 14: Trend component for COVID-19 mortality, March 2020 - December 2022	Figure 11: Weekly seasonal component for COVID-19 hospitalizations, March 2020 - December 2022
Figure 14: Trend component for COVID-19 mortality, March 2020 - December 2022	
Figure 15: Weekly seasonal component for COVID-19 mortality, March 2020 - December 2022  17  Figure 16: Stringency Index component for COVID-19 mortality, March 2020 - December 2022	Figure 13: Annual seasonal component for COVID-19 mortality, March 2020 - December 2022
Figure 16: Stringency Index component for COVID-19 mortality, March 2020 - December 2022	Figure 14: Trend component for COVID-19 mortality, March 2020 - December 2022
	Figure 16: Stringency Index component for COVID-19 mortality, March 2020 - December 2022

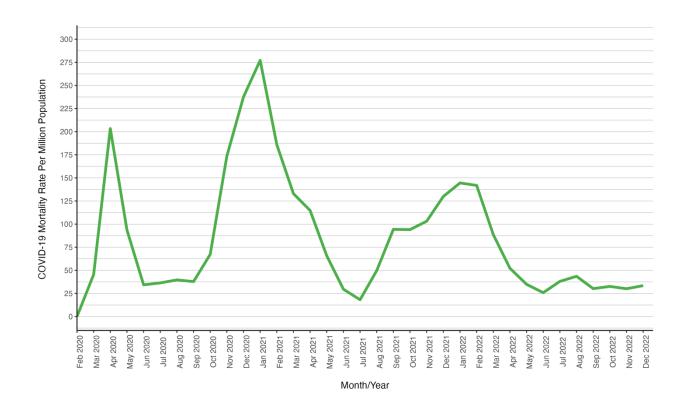


**Figure 1**: COVID-19 case rate per million population by month-year, February 2020 –

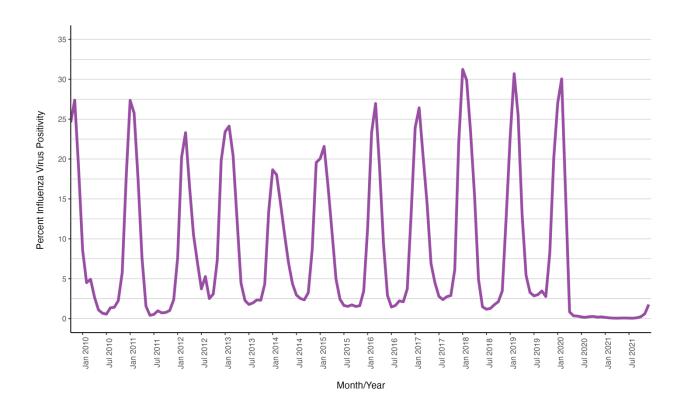
December 2022, European Union, United Kingdom, and United States



**Figure 2**: COVID-19 hospitalization rate per million population by month-year, February 2020 – December 2022, European Union, United Kingdom, and United States



**Figure 3:** COVID-19 mortality rate per million population by month-year, February 2020 – December 2022, European Union, United Kingdom, and United States



**Figure 4:** Influenza percent positivity October 2009 - December 2021, European Union, United Kingdom, and United States

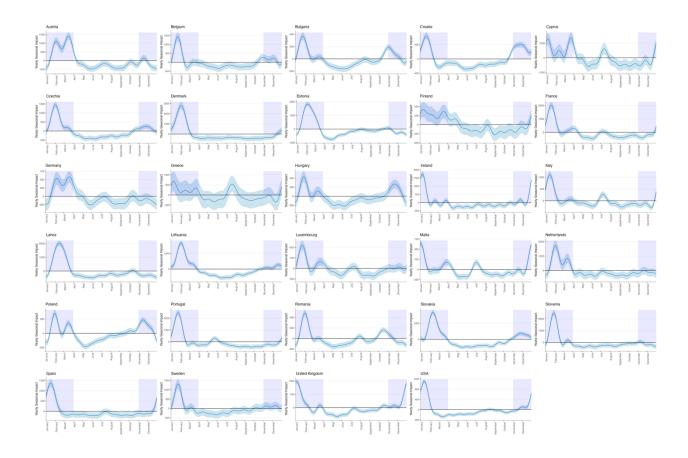


Figure 5: Annual seasonal component for COVID-19 cases, March 2020 - December 2022

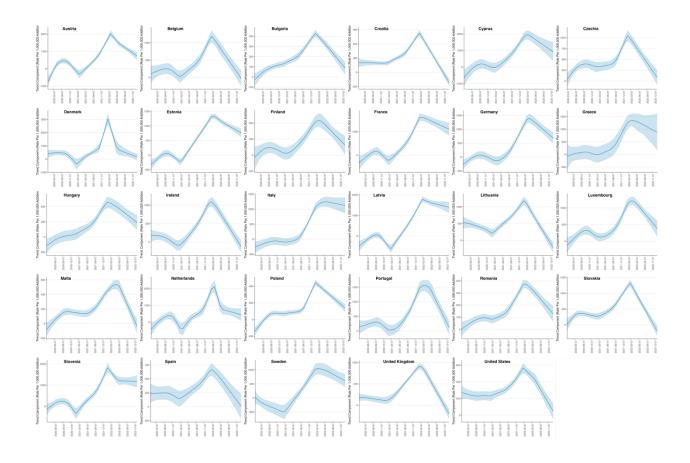


Figure 6: Trend component for COVID-19 cases, March 2020 - December 2022

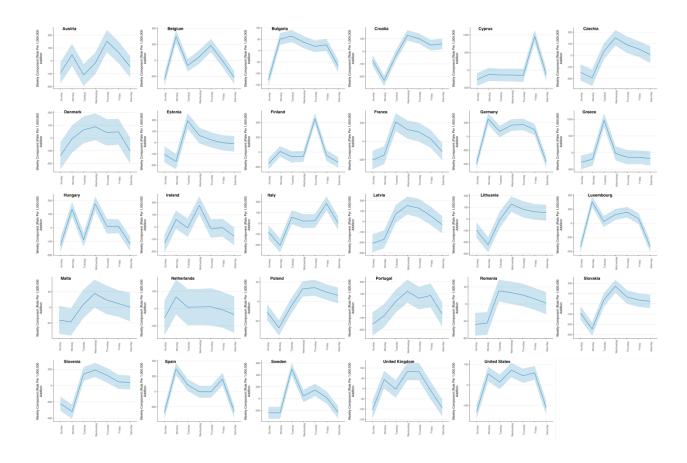


Figure 7: Weekly seasonal component for COVID-19 cases, March 2020 - December 2022

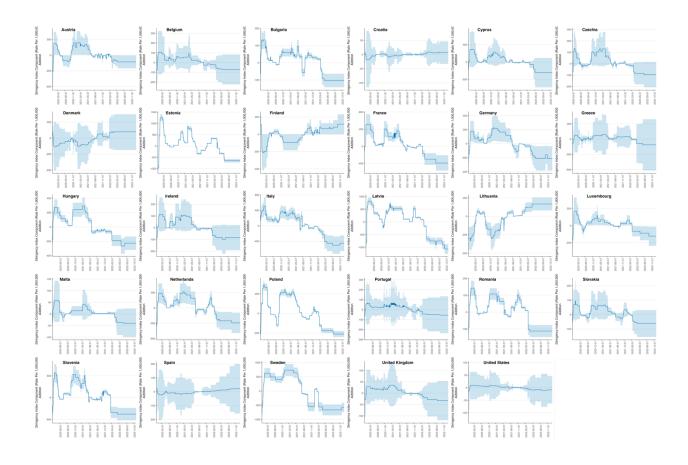
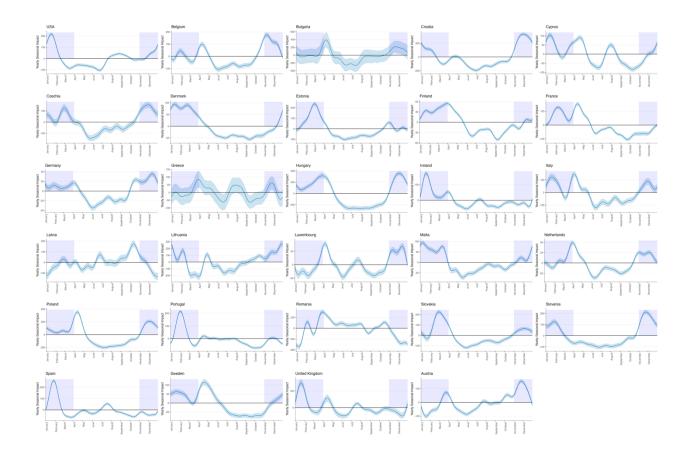
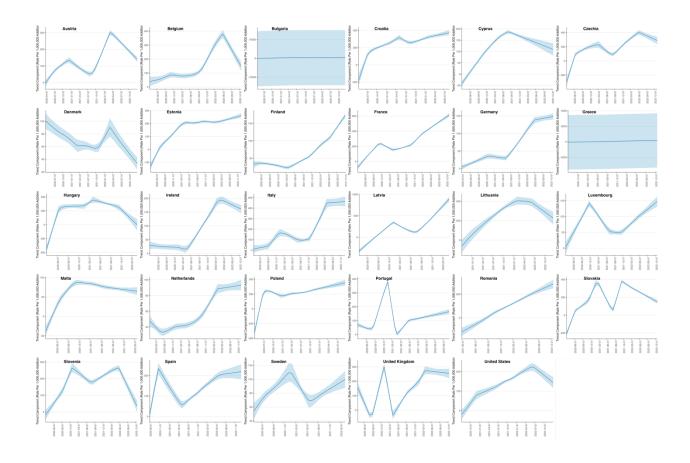


Figure 8: Stringency Index component for COVID-19 cases, March 2020 - December 2022



**Figure 9**: Annual seasonal component for COVID-19 hospitalizations, March 2020 - December 2022



**Figure 10:** Trend component for COVID-19 hospitalizations, March 2020 - December 2022

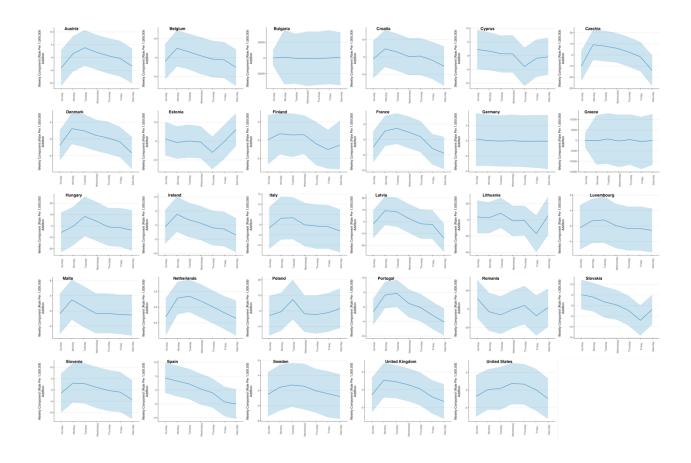


Figure 11: Weekly seasonal component for COVID-19 hospitalizations, March 2020 -

December 2022

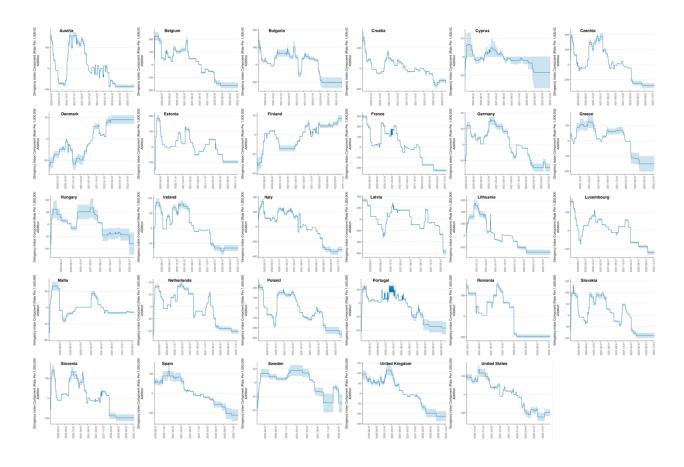


Figure 12: Stringency Index component for COVID-19 hospitalizations, March 2020 -

December 2022

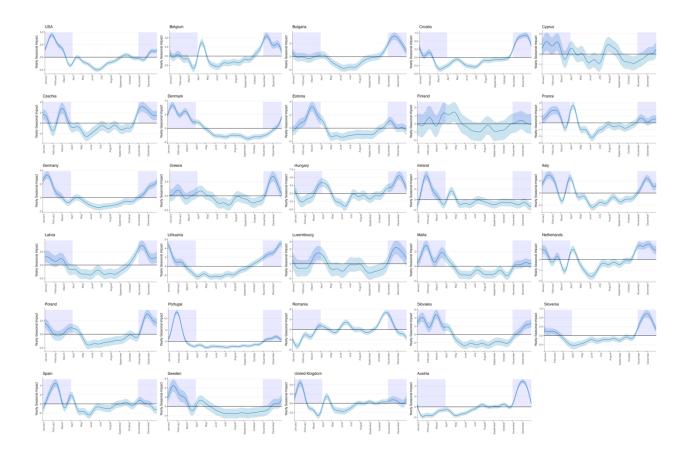


Figure 13: Annual seasonal component for COVID-19 mortality, March 2020 - December 2022

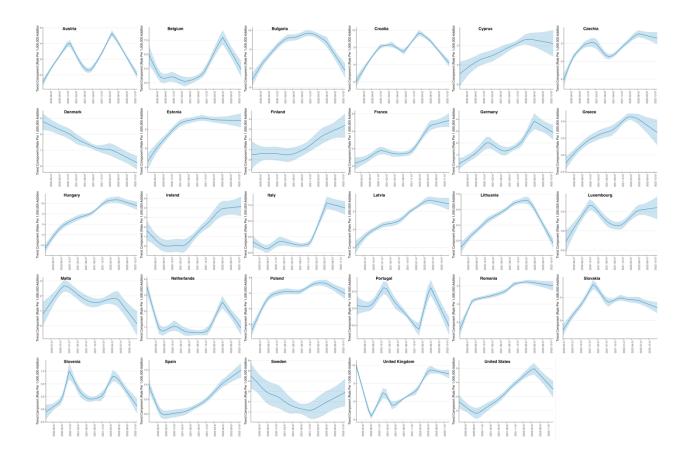


Figure 14: Trend component for COVID-19 mortality, March 2020 - December 2022

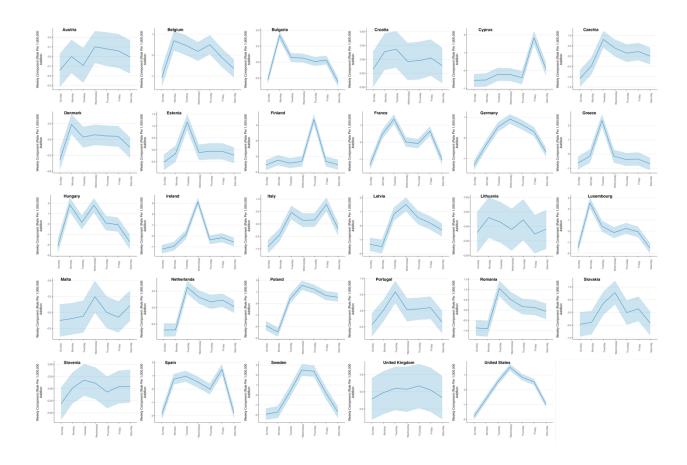


Figure 15: Weekly seasonal component for COVID-19 mortality, March 2020 - December 2022

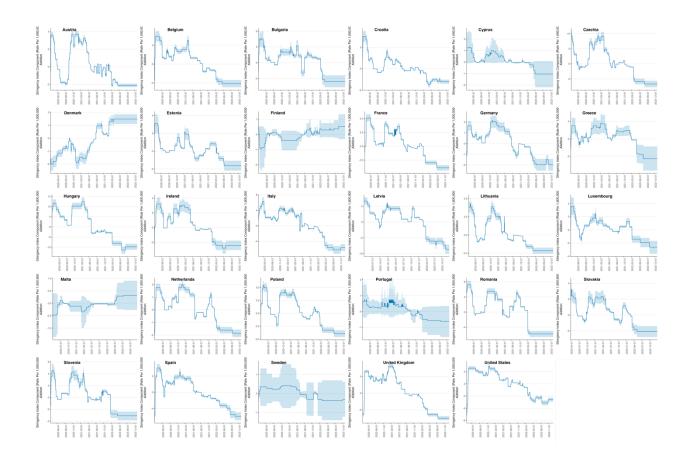


Figure 16: Stringency Index component for COVID-19 mortality, March 2020 - December 2022